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100

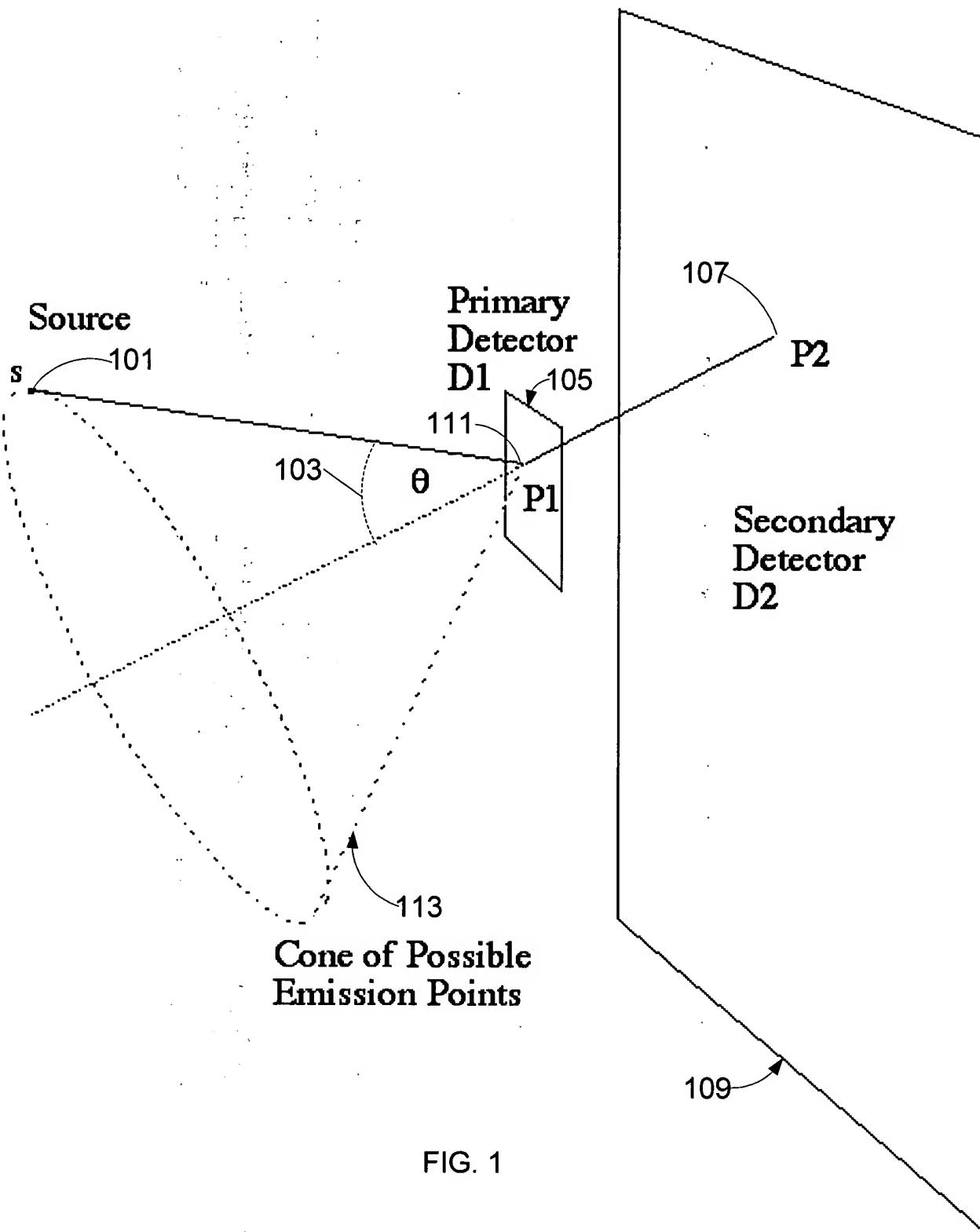


FIG. 1

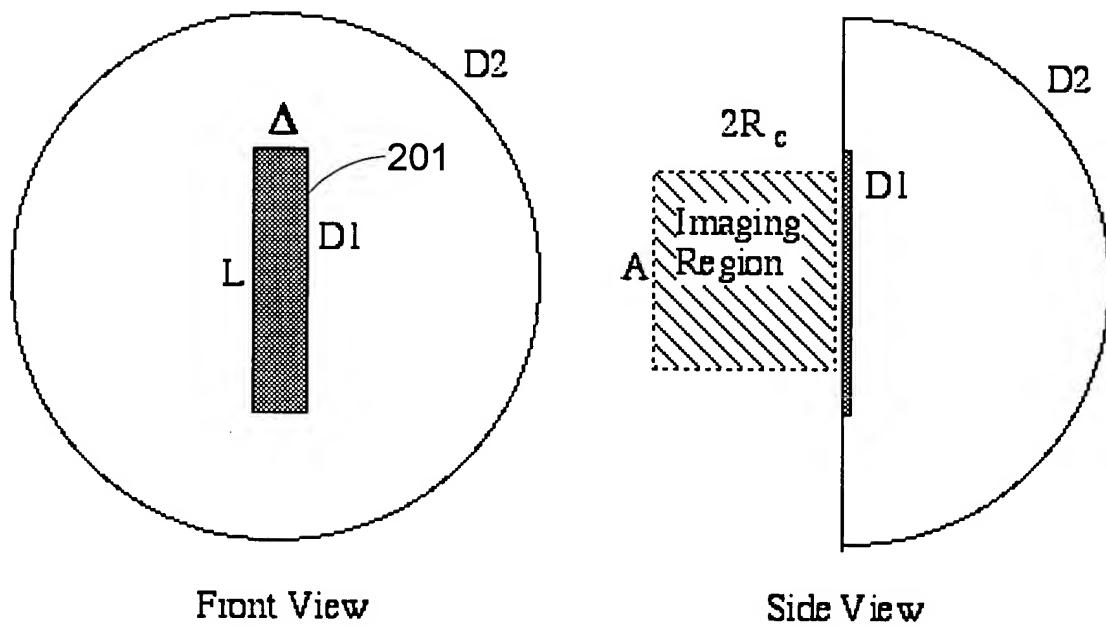


FIG. 2A

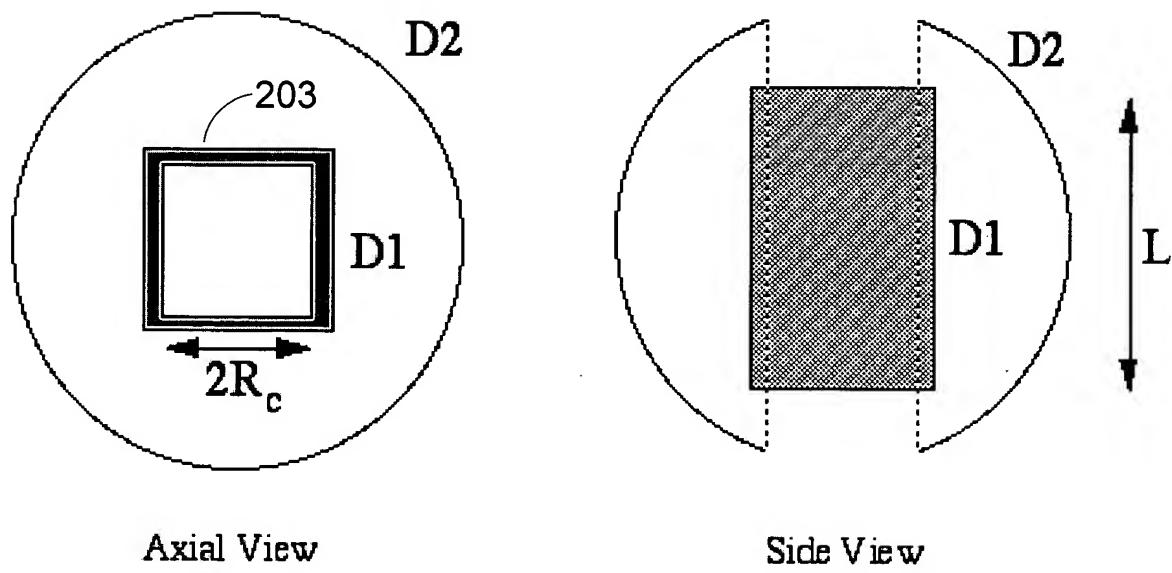


FIG. 2B

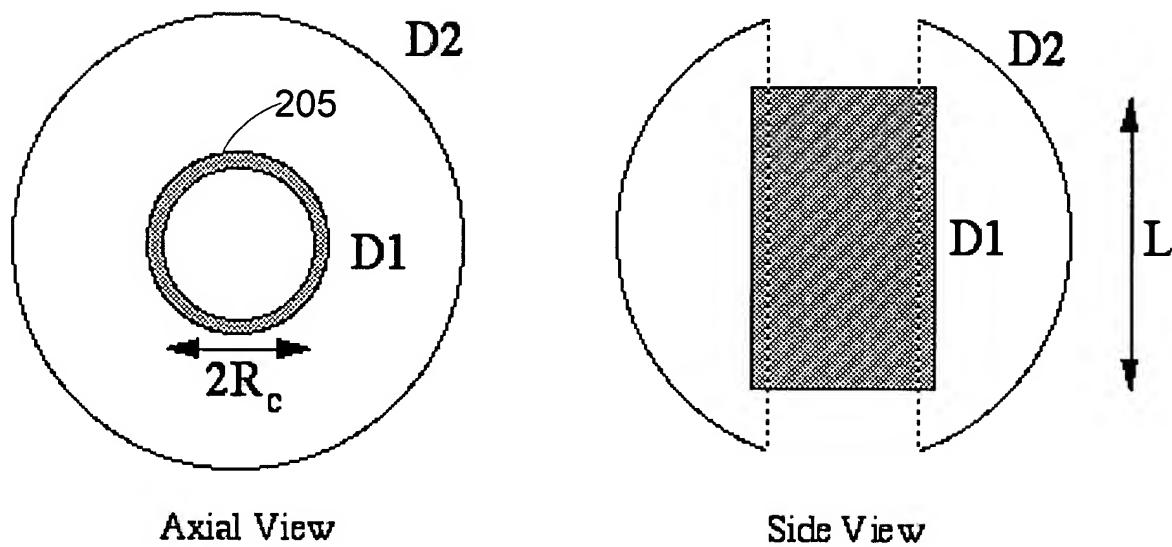


FIG. 2C

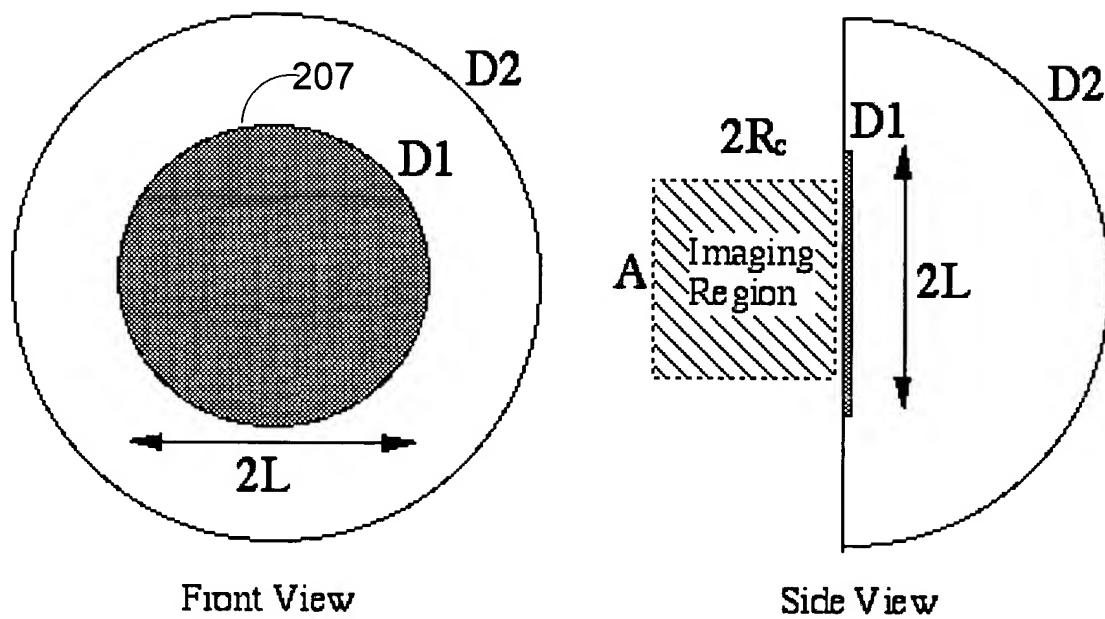


FIG. 2D

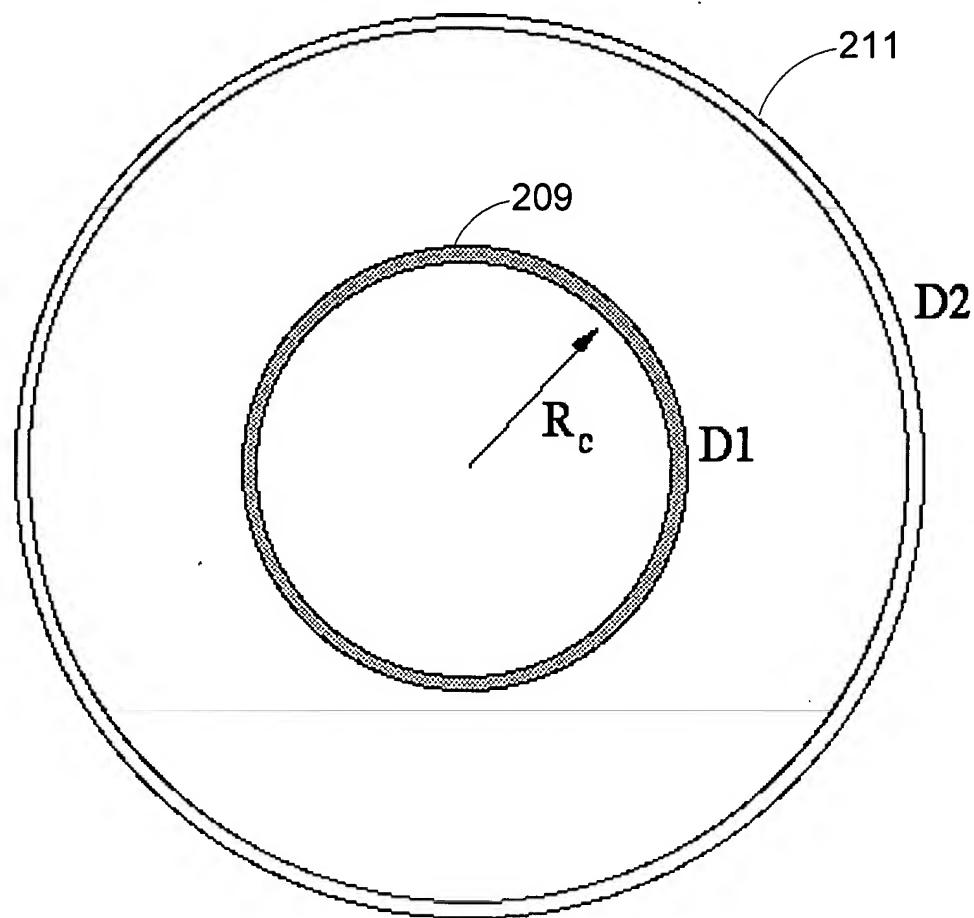
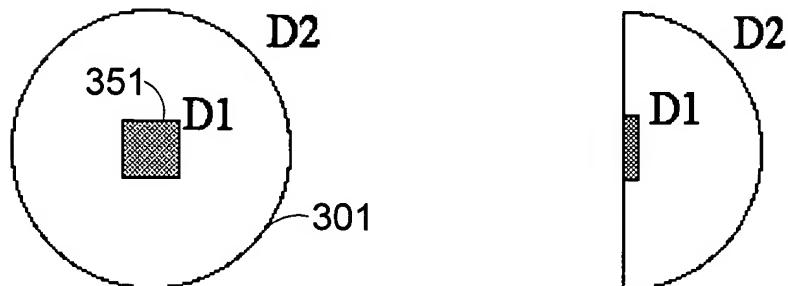


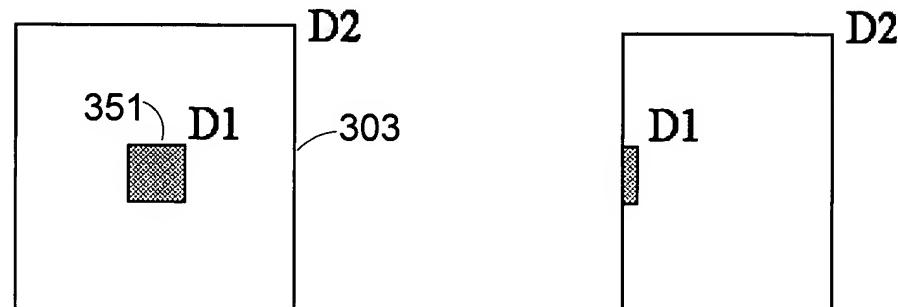
FIG. 2E



Front View

Side View

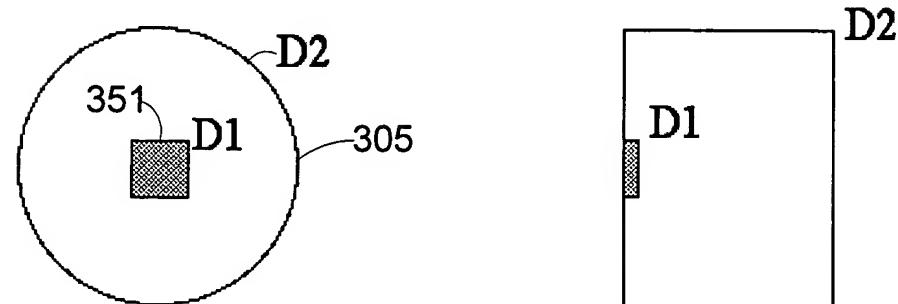
**Hemispherical D2 Detector**



Front View

Side View

**Box-Shaped D2 Detector**



Front View

Side View

**Cylindrical D2 Detector**

FIG. 3

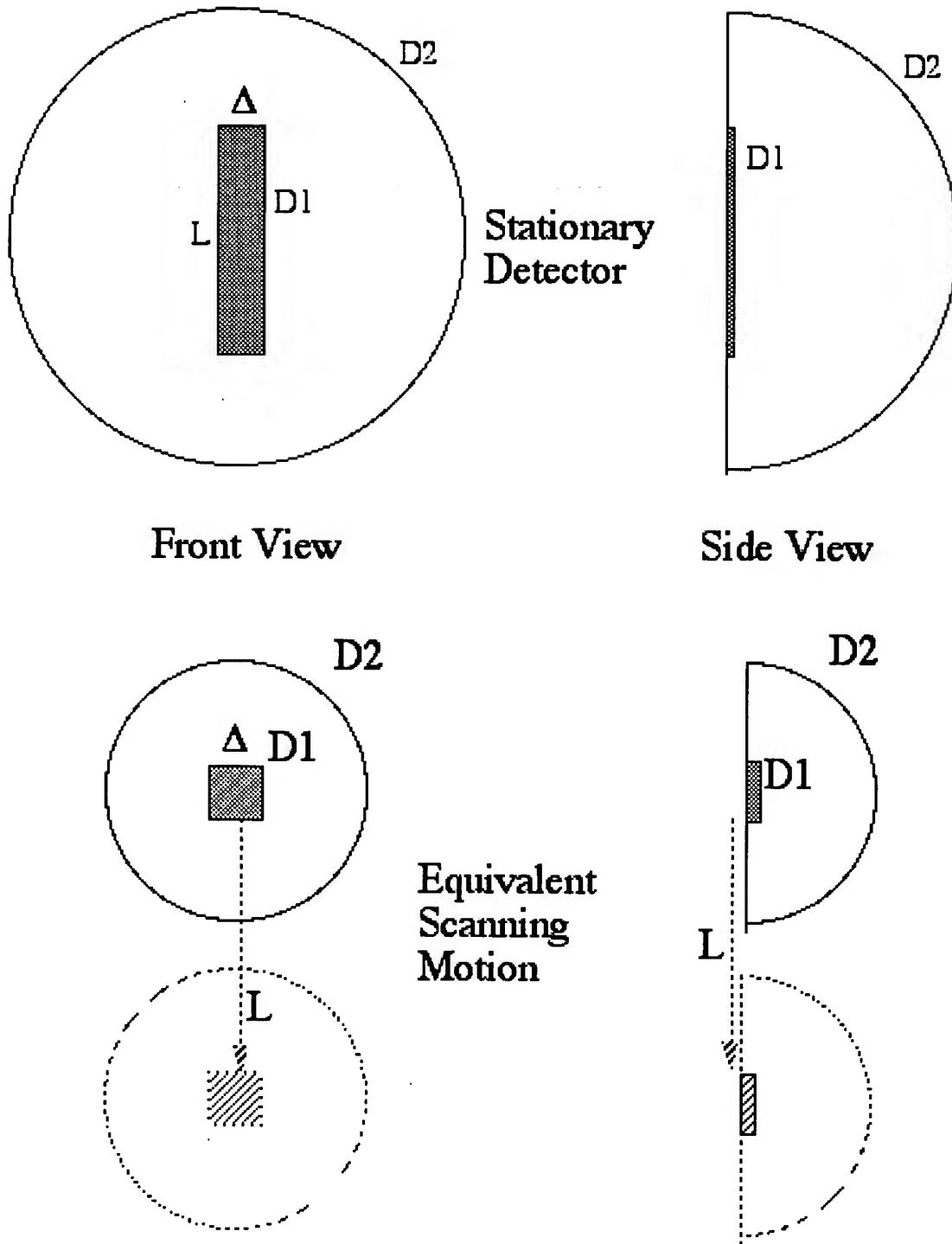


FIG. 4A

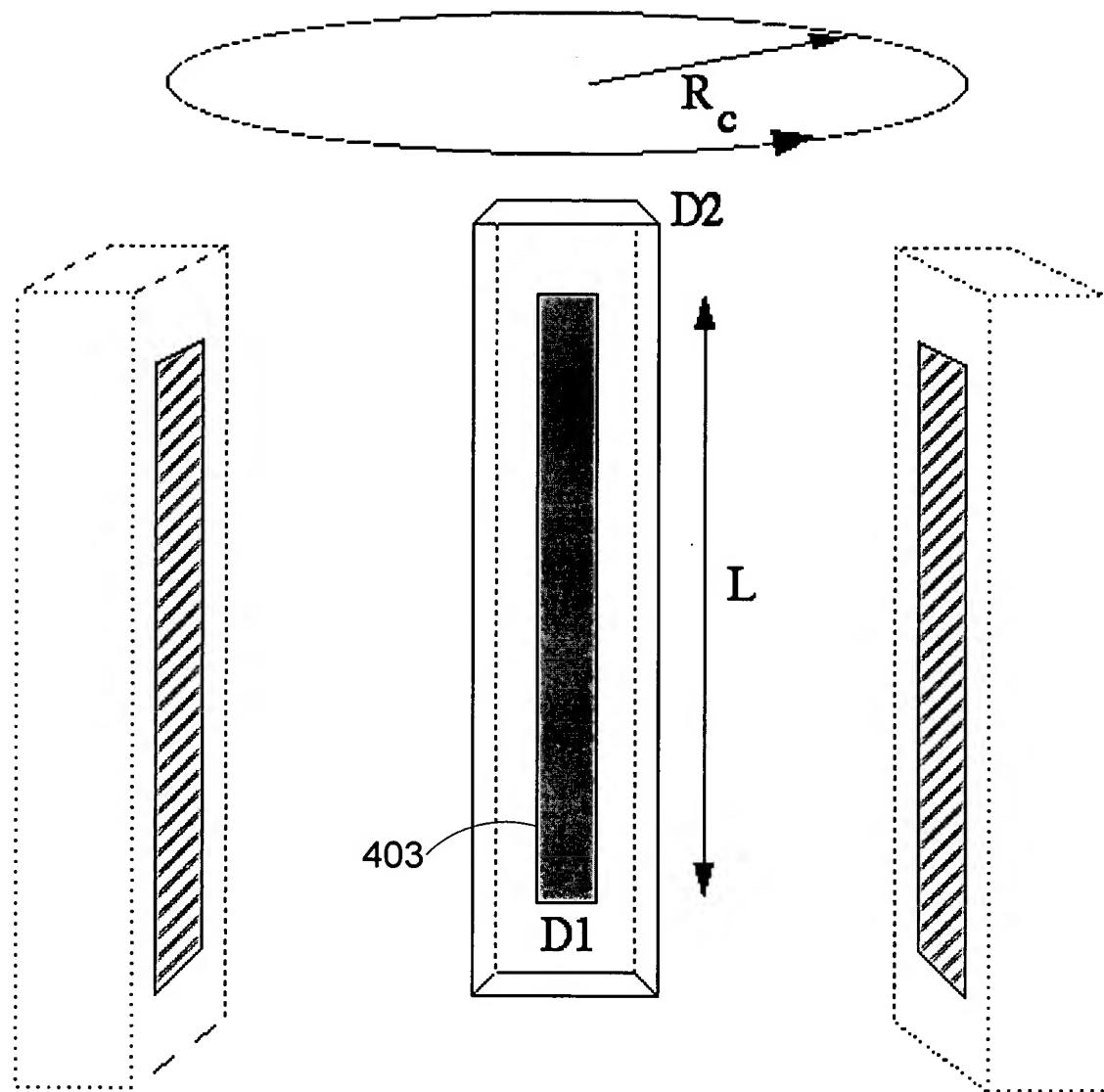


FIG. 4B

500

## FILTERED BACKPROJECTION RECONSTRUCTION

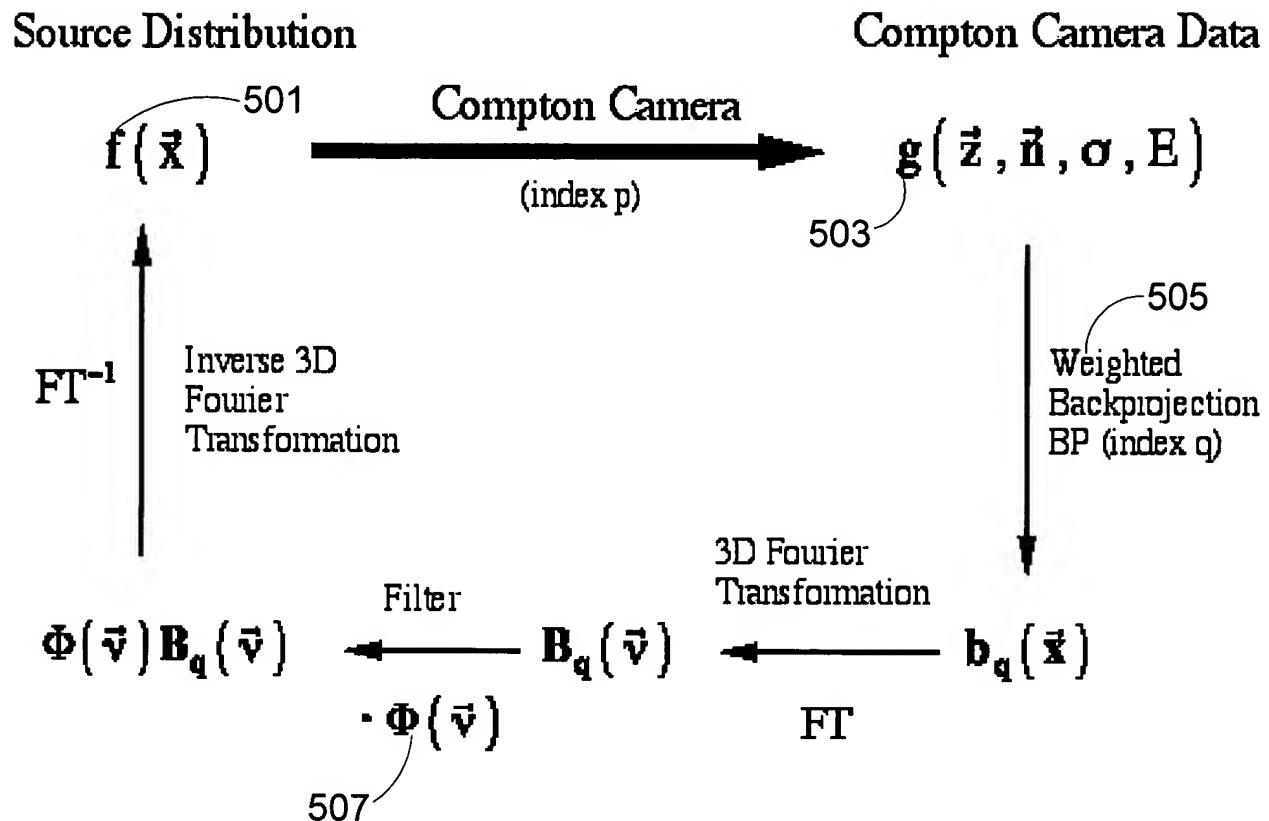


FIG. 5

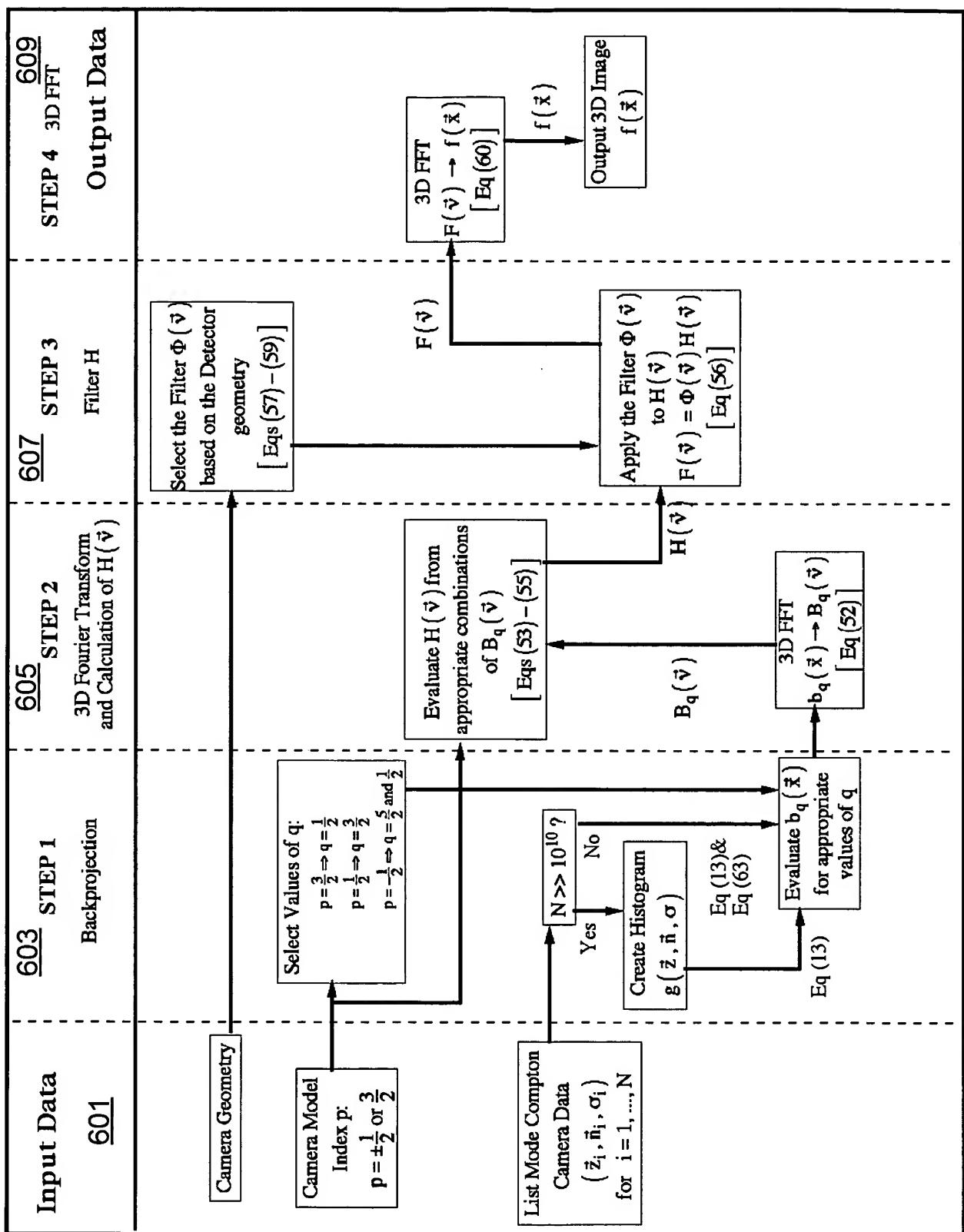
600

FIG. 6

Title: Filtered Backprojection Algorithms for Compton Cameras in Nuclear Medicine

Inventor: Gunter

Filed: March 24, 2004

Attorney Docket No. 006301.00002

Sheet 12 of 17

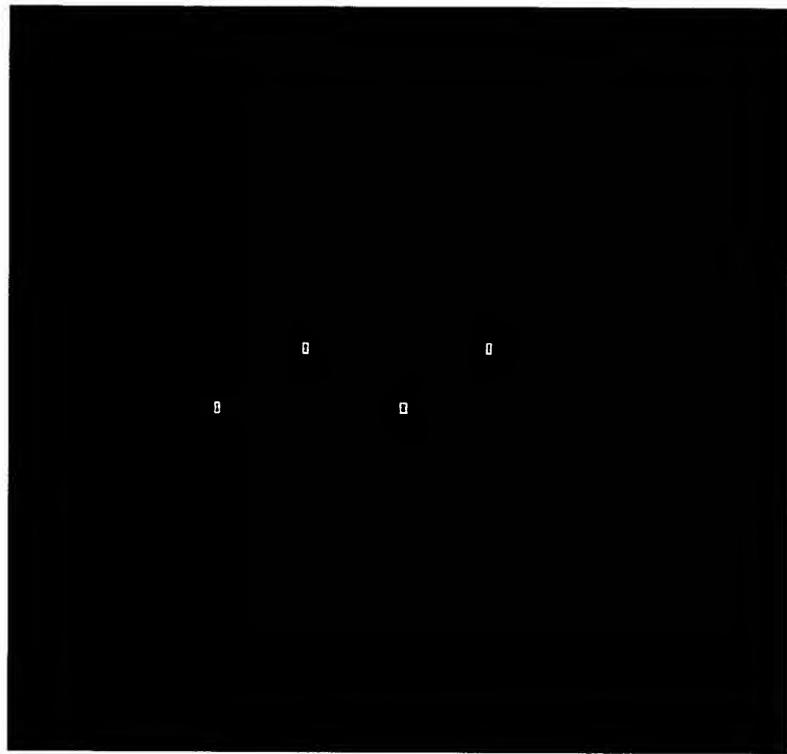


FIG. 7A

Title: Filtered Backprojection Algorithms for Compton Cameras in Nuclear Medicine

Inventor: Gunter

Filed: March 24, 2004

Attorney Docket No. 006301.00002

Sheet 13 of 17

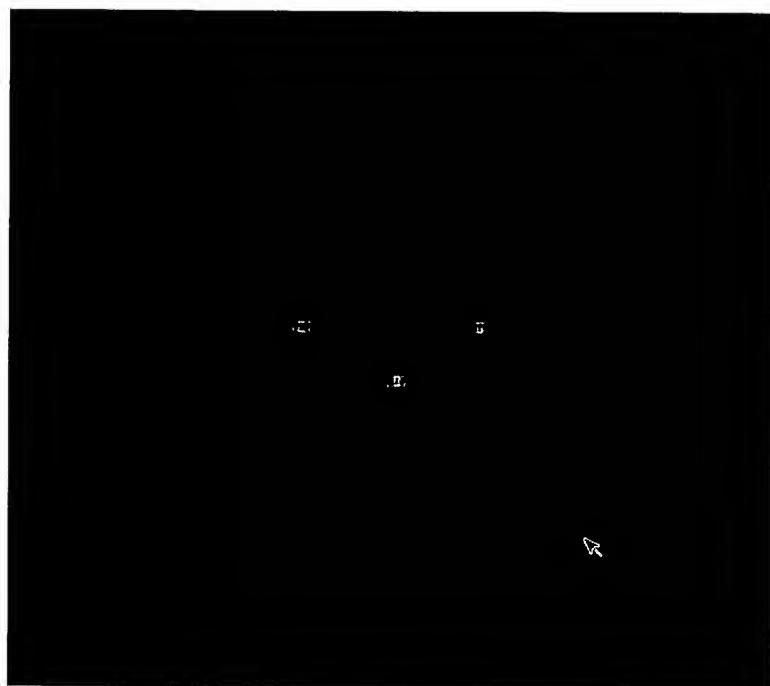


FIG. 7B

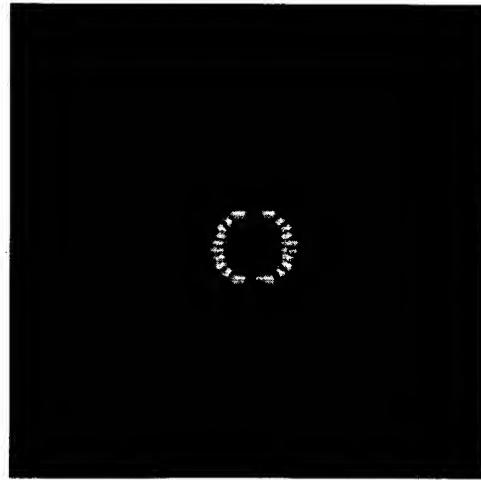
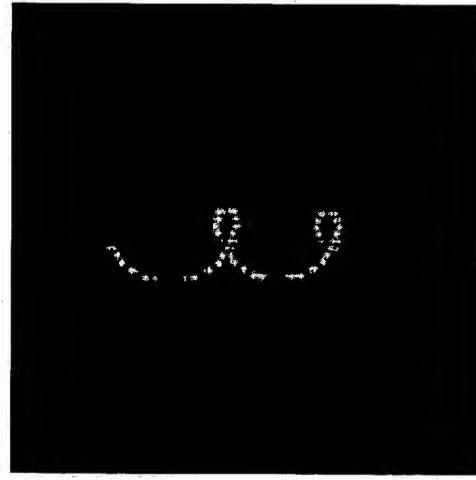
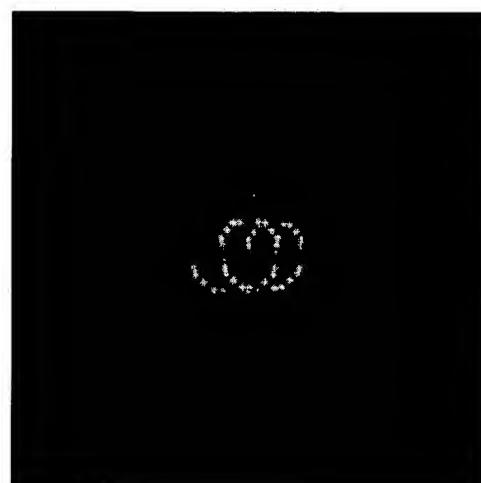
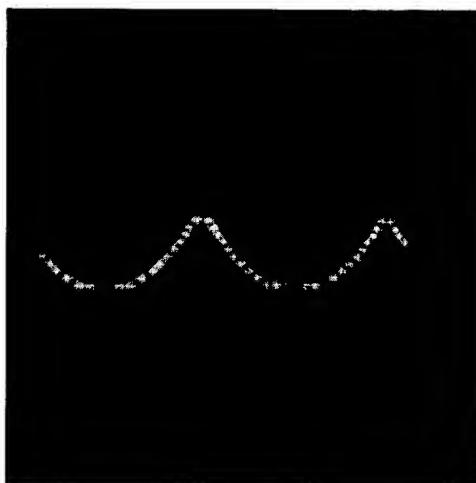
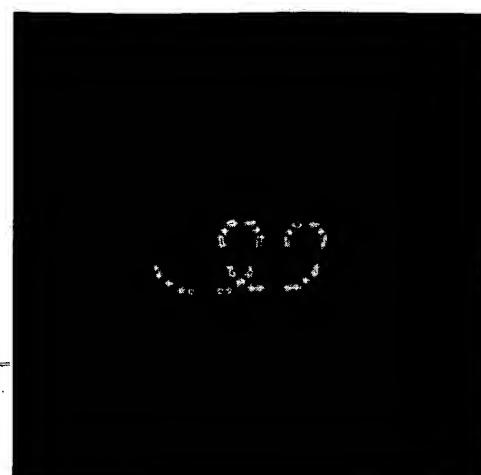
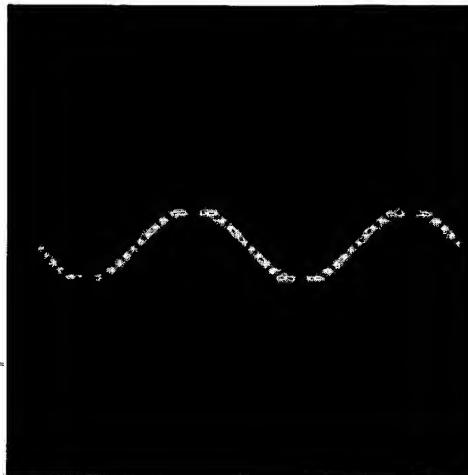
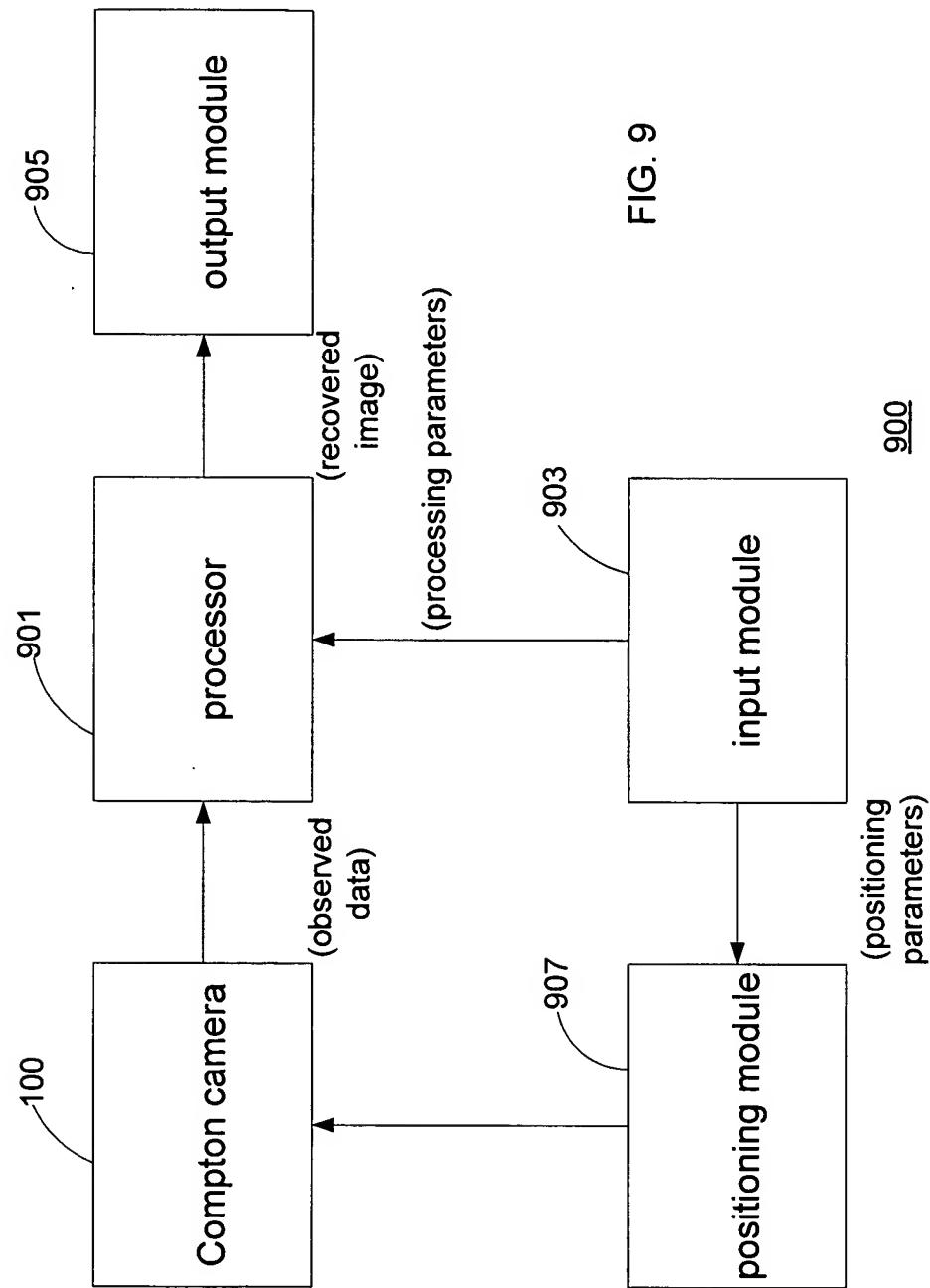
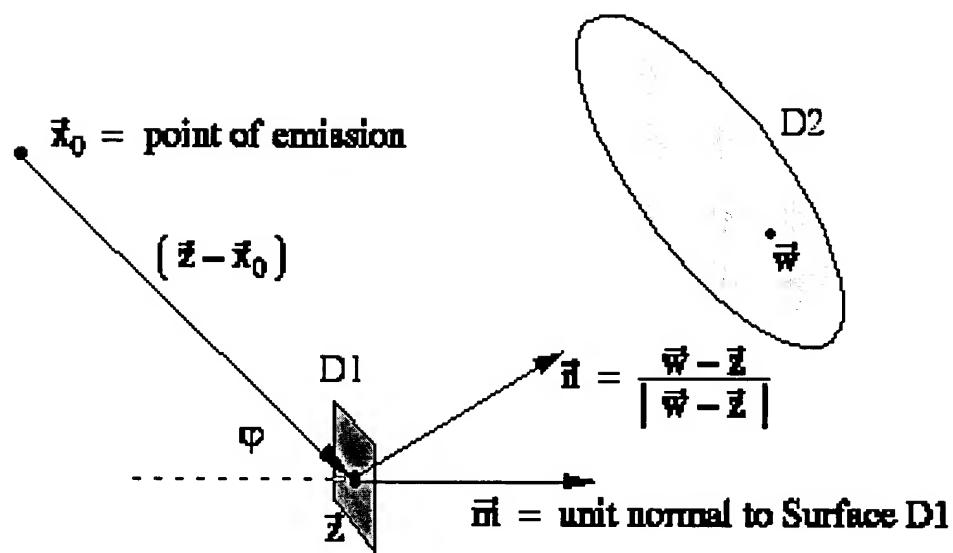


FIG. 8





$$\left\{ \begin{array}{l} \text{Flux at } \vec{z} \\ \text{from a point source} \\ \text{at } \vec{x}_0 \end{array} \right\} \propto \frac{\cos \varphi}{4\pi |\vec{z} - \vec{x}_0|^2} = \frac{[\vec{m} \cdot (\vec{z} - \vec{x}_0)]}{4\pi |\vec{z} - \vec{x}_0|^2}$$

FIG. 10

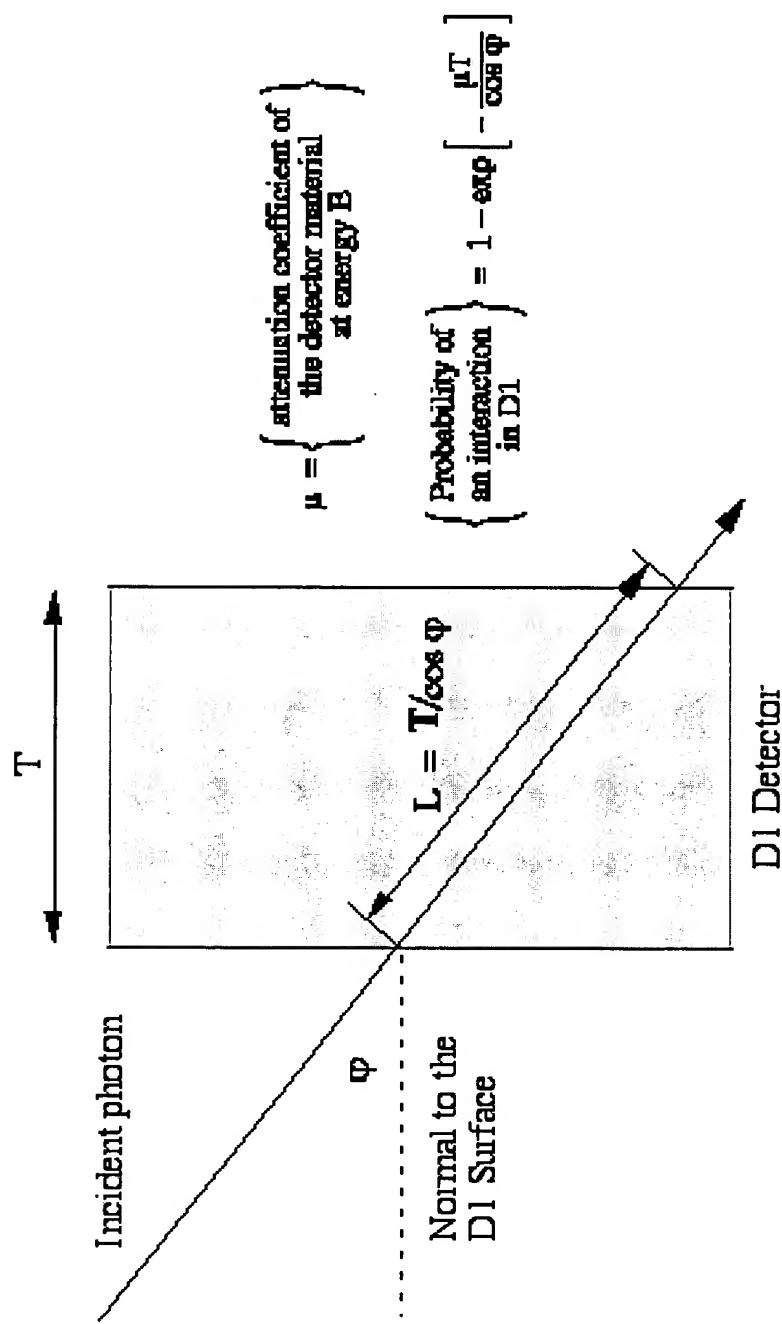


FIG. 11